

## ABSTRACT

Apparatus and a method for treating a fluid. The apparatus includes a fluid passageway, at least one source of irradiation, and curved reflecting troughs for reflecting irradiation onto the fluid passageway. A space is defined between the closed ends of the troughs. A first set of reflectors joins end edges of the trough open ends, and a second set of reflectors joins the top and bottom edges of the troughs and the first set of reflectors. The reflectors and troughs define a chamber. The fluid passageway and the at least one source of irradiation are positioned in the chamber, with each source of irradiation within a respective trough. At least one of the fluid passageway and the at least one source of irradiation is spaced from any focal axes so as to provide a substantially uniform irradiation distribution within the fluid in the fluid passageway.